REMARKS

Status

This Amendment is responsive to the Final Office Action dated June 21, 2005, in which Claims 1-54 were rejected. Claims 1-54 are pending in the Application and are presented for reconsideration and allowance.

35 USC 103 -- Claim Rejections

The Final Office Action rejected Claims 1, 7-11, 13, 15, 19, 25-29, 31, 33, 37, 43-47, 49, and 51 under 35 U.S.C. 103(a) as being unpatentable over *Bresler* (U.S. Patent 6,115,140) in view of *Lin* (U.S. Patent 5,553,171) and further in view of *Dohnomae* (U.S. Patent 6,072,588).

In the current art, any proof made with a bitmap file that is used to make the plate is incorrect. The Applicant's method provides a solution to this problem in that the formed bitmaps are passed directly to the proofing system bypassing a dot-gain correction box (See Paragraph beginning on Page 14, Line 17 of the Specification as filed). The bitmap file is formed by the novel inclusion of the step of sampling additional sets of multilevel pixels at a preset sample rate identifying a set of sampled multilevel pixels (See Paragraph beginning on Page 13, Line 30 of the Specification as filed). Further, the adjusted bitmap file is formed by the novel inclusion of the step of inputting the set of sampled multilevel pixels to a lookup table to create an output that is a threshold level for the set of sampled multilevel pixels.

Bresler is a color conversion method that does not disclose sampling additional sets of multilevel pixels at a preset sample rate identifying a set of sampled multilevel pixels and inputting a set of sampled multilevel pixels to a lookup table to create an output that is a threshold level for the set of sampled multilevel pixels (See Col. 3, Lines 25-47).

Lin references the use of implementing conversion of a bitmap of a first resolution to a second resolution through simple pixel doubling at the binary level where the printing is done; however, *Lin* teaches away from this method by stating that the density in any given area is not maintained with pixel doubling or any similar method, and that artifacts, which give the image a different appearance, are noted in the resolution converted image (See Col. 1, Lines 50-62, Col. 4, Lines 57-67).

Lin discloses the use of lookup tables with regard to the reconstruction circuit and electronic printing. The look-up table procedure in *Lin* generates a new pixel from an old single bit binary pixel that must then undergo a conventional filtering process for eliminating certain frequency components, a conventional two-dimensional linear interpolation, and a conventional error diffusion process. Additional filtering will be performed, again using signals and frequencies, based on the requirements for printing.

Applicant's use of look-up tables involves sampling the second, or additional, set(s) of multilevel pixels and is performed to select a quantification level based on the average number of dots in an area of image. This determination of dot-gain or loss for a file will result in an adjusted dot-gain of the binary halftone bitmap file which can then go directly to proof or press.

Dohnomae is a method which teaches the use of halftone percentage data on presensitized plates in determining the look-up table values and ultimately in the conversion to binary data (See Col. 7, Lines 22-63). In this manner, the bit map data corresponding to the pixel of a plate is processed by phototype setting machines which produce four process plate films having halftone dot images as block copies and presensitized plates as printing plates (See Col. 8, Lines 35-60).

Applicant's method shows that any proof made with a bitmap file that is used to make the plate is incorrect. Applicant provides a method to pass the adjusted halftone binary bitmap directly to proof or press and solves the problems associated with the use of plates as described by *Dohnomae*.

Applicant uses a raster image processor (RIP) to specify the dot-gain adjustment and accordingly generate an adjusted halftone binary bitmap file that can be sent directly to proofing. Applicant uses the RIP to convert continuous tone images through the dot-gain look-up tables and into halftone binary images at the writing resolution of the proofing system. *Bresler* does not teach the use of a raster image processor to be used in color conversion. *Bresler* teaches the use of dilating the halftone image according to a certain density of color to achieve the converted color halftone image. *Lin* further teaches, in correcting some of the problems associated with color conversion and dilation techniques, the use of filtering gray images to remove frequency components and achieve a halftone image at a second resolution that must then undergo several

more processes to be converted to a binary halftone that can actually be sent to print. *Dohnomae* also does not teach the use of an RIP. Rather, Applicant believes *Dohnomae* uses comparison methods with regard to halftone-dot area percentage data to produce presensitized plates that can be used in production of a printed color document (See Col. 7, Lines 22–67 and Col. 8, Lines 1-60). Accordingly, *Dohnomae* does not teach the missing elements from *Bresler* and *Lin* of having a processor with specified dot-gain adjustments for proofing that can be used to convert continuous tone images to adjusted halftone binary images that can be sent directly to proofing.

Claims 7-11, 13, 15, 25-29, 31, 43-47, 49, and 51 are dependent on Claims 1, 19, and 37 and therefore include all the features thereof. Accordingly, Applicant respectfully request reconsideration of the rejection of the claims as being unpatentable over *Bresler* in view of *Lin*.

Claims 2-6, 20-24, and 38-42 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Bresler* in view of *Lin* and *Dohnomae* and further view of *Fan* (US Patent 5,339,170).

Applicant uses a first digital filter that can be an edge enhancement filter, an average filter, a high pass filter, a low pass filter, or a blur filter positioned horizontally, vertically, or in a combination thereof to filter a dot-gain adjusted halftone binary bitmap with binary pixels and produce the first set of multilevel pixels. Applicant uses a second digital filter that can be an average filter or a low pass filter. The second filter can be arranged horizontally, or vertically, or in a combination thereof to filter the first set of multilevel binary pixels and produce a second set of multilevel pixels which is sampled at a preset sample rate and inputted into the look-up tables to produce the binary pixel output and form an adjusted halftone binary bitmap for proofing.

Applicant believes *Fan* is using a set combination of hybrid filters wherein a first average or low pass horizontal filter and a second pattern matching vertical filter are used. In addition, *Fan* discloses the use of the hybrid filters with regard to conversion of halftone images into continuous tone images and then back again. The hybrid system uses filters that must be positioned perpendicular to each other and must be pattern matching filters. The hybrid filtering procedure

is preferred when the procedure is performed at least four times (i.e., horizontal, vertical, and both diagonals) (See Col. 4, Lines 12-68).

Applicant's use is not a set combination as taught in *Fan* such that the filters must be positioned perpendicularly and must be pattern matching filters. In addition, the Applicant's use of the filters is in filtering binary pixels to obtain first and second sets of multilevel pixels to produce an adjusted halftone binary bitmap that can be sent directly to proofing. *Fan* does not teach this missing element from *Bresle*r, *Lin*, and *Dohnomae*.

Accordingly, Applicant requests reconsideration of the claims 2-6, 20-24, and 38-42 as Applicant's use of the first and second filters is not obvious with regard to *Bresler*, in view of *Lin* and *Dohnomae*, and in further view of *Fan*.

Claims 12, 14, 16-18, 30, 32, 34-36, 48, 50, and 52-54 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Bresler* in view of *Lin* and *Dohnomae* and further view of *Eschbach* (US Patent 5,208,871).

Eschbach teaches sampling a halftone bitmap file that takes into account resolution, size, and orientation of the bitmap file (Col 3, Lines 1-49) in order to eliminate artifacts in a converted image. *Eschbach* does not teach the missing element from *Bresler, Lin* and *Dohnomae* of sampling additional sets of multilevel pixels at a preset sample rate and creating adjusted halftone binary bitmaps that can be sent directly to a proofing system.

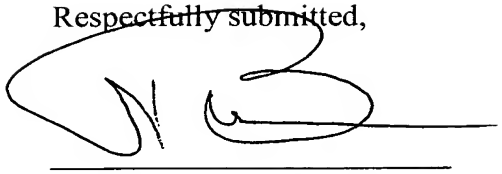
Accordingly, Applicant requests reconsideration of the claims 12, 14, 16-18, 30, 32, 34-36, 48, 50, and 52-54.

Summary

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.